

**RECORD OF DECISION
COOPER ROAD AND COMMERCE AVENUE
WQARF REGISTRY SITE
GILBERT, ARIZONA**



June 8, 2020

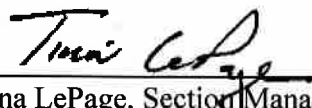
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**RECORD OF DECISION
COOPER ROAD AND COMMERCE AVENUE
WQARF REGISTRY SITE
GILBERT, ARIZONA**

APPROVAL PAGE

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LIST OF ACRONYMS

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
A.R.S.	Arizona Revised Statute
AS	Air Sparge
AWQS	Aquifer Water Quality Standard
BGS	Below Ground Surface
CAB	Community Advisory Board
COCs	Contaminants of Concern
DEUR	Designated Environmental Use Restriction
ERA	Early Response Action(s)
FS	Feasibility Study
GETS	Groundwater Extraction Treatment System
GPL	Groundwater Protection Level(s)
GPM	Gallons per Minute
LGAC	Liquid-Phase Granular Activated Carbon
mg/kg	Milligrams per Kilogram
MNA	Monitored Natural Attenuation
nrSRL	Non-Residential Soil Remediation Level(s)
PCE	Tetrachloroethene
PRAP	Proposed Remedial Action Plan
RI	Remedial Investigation
RO	Remedial Objective(s)
ROD	Record of Decision
rSRL	Residential Soil Remediation Level(s)
Site	Cooper Road and Commerce Avenue Water Quality Assurance Revolving Fund Registry Site
SRP	Salt River Project
SVE	Soil Vapor Extraction
TCE	Trichloroethene
TOG	Town of Gilbert
Unichem	United Chemical Corporation
VOCs	Volatile Organic Compounds
WQARF	Water Quality Assurance Revolving Fund
µg/L	Micrograms per Liter

1.0 DECLARATION

1.1 Site Name and Location

This Record of Decision (ROD) is for the Cooper Road and Commerce Avenue Water Quality Assurance Revolving Fund (WQARF) Registry Site (Site) located in Maricopa County, Gilbert, Arizona. The Site is located in a mixed residential, commercial, and industrial area of Gilbert and is bounded by West Cullumber Avenue to the south, North McQueen Road to the west, West Houston Avenue to the north, and North Golden Key Drive to the east (Figure 1).

The Site was added to the WQARF registry in 2004, with an eligibility and evaluation score of 33 out of 120.

1.2 Basis and Purpose

This ROD presents the Selected Remedy for the Site, chosen in accordance with applicable requirements in Title 18, Chapter 16 of the Arizona Administrative Code (A.A.C.). The process for selecting the remedy complied with Arizona Revised Statute (A.R.S.) §49-287.04. The Arizona Department of Environmental Quality (ADEQ), as the lead agency, has reviewed the remedy and determined that Site completion criteria used to evaluate the selected remedial action for Contaminants of Concern (COCs) in groundwater and soil at the Site and Remedial Objectives (ROs) will be satisfied. This ROD describes the basis for the Selected Remedy and addresses all elements of A.A.C. R18-16-410 under the WQARF Program. The decision in this ROD is based upon previous activities and investigations performed for this Site that are documented and located in ADEQ's Administrative Record file. The State of Arizona, acting by and through ADEQ, has selected the remedy detailed in this document.

1.3 Site Assessment

Tetrachloroethene (PCE) and trichloroethene (TCE) are volatile organic compounds (VOCs) and the COCs at the Site. PCE and TCE have been identified as COCs in groundwater. PCE has been identified as a COC in soils. The Remedial Investigation (RI) Report (HGC, 2015) also identified the metals arsenic and copper as COCs in soils. These metals are no longer considered COCs as arsenic and copper in soils do not impact the achievement of Site ROs because they (ADEQ, 2019b):

- Do not exceed groundwater protection levels (GPLs);
- Have not been detected above Aquifer Water Quality Standards (AWQSs); and
- Do not pose a risk of human exposure to concentrations exceeding residential soil remediation levels (rSRLs).

Releases of COCs to the environment occurred through a drywell at the former United Chemical Corporation (Unichem) facility at 619 West Commerce Avenue. The location of this source area is presented on Figure 1.

The COCs have been detected in groundwater and soil at concentrations exceeding their respective regulatory standards. PCE and TCE have been detected in groundwater at concentrations exceeding the AWQS of 5 micrograms per liter ($\mu\text{g/L}$). Results from the most recent groundwater monitoring, conducted in October 2019, indicated that the highest detected concentration of PCE at the Site was 19 $\mu\text{g/L}$, occurring in monitoring well MW-120, and that TCE exceeded the AWQS in only one well, MW-117, at a concentration of 5.9 $\mu\text{g/L}$.

PCE has been detected in soils around the former Unichem drywell source area at concentrations exceeding the non-residential Soil Remediation Limit (nrSRL) of 13 milligrams per kilogram (mg/kg). The highest recorded detection of PCE in soils at the Site was 3,900 mg/kg in 2012. During further investigation of source area soils conducted in 2018, the highest detected concentration of PCE was 51 mg/kg .

Several Early Response Actions (ERAs) have been implemented at the Site. These include:

- The operation of an air sparge (AS)/ soil vapor extraction (SVE) remediation system to decrease COC mass in the vadose zone at the former Unichem facility. Operation of the system began in December 2008 and continues as of the date of this ROD. The system has removed an estimated mass of approximately 5,000 pounds of VOCs since 2008.
- The operation of a groundwater extraction and treatment system (GETS) to hydraulically contain the PCE source area. The GETS began operation in September 2010 and was shut down in September 2014 due to several quarters of negligible VOC recovery. The GETS treated over 193 million gallons of groundwater and removed an estimated mass of approximately 41 pounds of VOCs.

1.4 Selected Remedy

The Selected Remedy, identified as the Reference Remedy in the Feasibility Study (FS) Report (Geosyntec, 2018a) and proposed in the Proposed Remedial Action Plan (PRAP) (ADEQ, 2019b), to remediate the soil and groundwater at the Site includes the following technologies:

- SVE to clean-up the impacted soil/soil vapor within the source area at the former Unichem facility.
- Monitored natural attenuation (MNA) to verify the natural degradation of the COCs in the groundwater at the Site.

The Selected Remedy includes the following contingencies:

- Additional SVE – If COC analytical results from soil and/or soil vapor confirmation sampling exceed nrSRLs, minimum GPLs, or Site-specific soil vapor screening levels, then the SVE system may be operated for up to an additional five years.
- Site-Specific Risk Assessment and Declaration of Environmental Use Restriction (DEUR)– If COC soil/soil vapor analytical results from SVE confirmation sampling exceed nrSRLs and/or minimum GPLs, a Site-specific risk assessment may be performed to evaluate potential health risks via exposure pathways for receptors, as well as an evaluation of the potential for COCs to impact groundwater. Depending on the findings of the risk assessment, the implementation of a DEUR may be used in conjunction with an engineering or administrative control to ensure the protection of human health and the environment.
- Wellhead Treatment – If Site COCs cause an exceedance of AWQs at a point of drinking water regulatory compliance, then wellhead treatment for the impacted SRP and/or TOG supply well(s) will be used to treat impacted groundwater produced by the well(s).
- Additional MNA – If COC concentrations continue to exceed AWQs at the end of the timeframe assumed by the remedy, then the MNA program may be extended for up to 10 years.

The remedial equipment and the wells associated with the Site will be abandoned in accordance with the PRAP and applicable Arizona Department of Water Resources (ADWR) requirements, including A.A.C. R12-15-816, upon completion of the remedial actions. ADEQ will delist the Site in accordance with A.R.S. §49-287.01(K) upon completion of the abandonment activities.

A detailed description of the Selected Remedy is provided in Section 3.0 of this ROD.

1.5 Statutory Determinations

In June 2015, ADEQ issued the RI Report pursuant to A.R.S. §49-287.03(E) and A.A.C. 18-16-406. The RI report:

- Established the nature and extent of the contamination and the sources thereof.
- Identified current and potential impacts to public health, welfare, and the environment.
- Identified current and reasonably foreseeable uses of land and waters of the state.
- Obtained and evaluated information necessary for identification and comparison of alternative remedial actions.

In February 2018, ADEQ issued the FS Report pursuant to A.R.S. §49-287.03(F) and A.A.C. 18-16-407. The FS Report, based on information obtained during the RI, evaluated three remedial alternatives and identified a recommended remedy for the Site. The FS Report:

- Provided for the development of a Reference Remedy and at least two alternative remedies which were capable of achieving all of the ROs.
- Confirmed that the Reference Remedy was based upon best engineering, geological, and hydrogeological judgement.
- Provided one alternative remedy that was more aggressive than the Reference Remedy.
- Provided one alternative remedy that was less aggressive than the Reference Remedy.

In June 2019, ADEQ issued the PRAP pursuant to A.R.S. §49-287.04 and A.A.C. 18-16-408. The PRAP presented the remedy recommended by the FS (Reference Remedy), selected the remedy, and provided costs to implement the remedy. Public comments on the Selected Remedy (Reference Remedy) were solicited and received (Appendix A). The PRAP:

- Identified the boundaries of the Site.
- Summarized the results of the RI and FS Reports.
- Proposed the Selected Remedy and its cost.
- Described how the remedial goals and selection factors were evaluated.

Pursuant to A.R.S. §49-287.04 and A.A.C. 18-16-410, this ROD is the final administrative decision as defined under A.R.S. §41-1092. The Selected Remedy meets the following criteria as stipulated in A.R.S. §49-282.06:

- Assures the protection of public health and welfare and the environment.
- To the extent practicable, provides for the control, management or cleanup of the hazardous substances in order to allow the maximum beneficial use of the waters of the state.
- Is reasonable, necessary, cost-effective, and technically feasible.

2.0 SITE BACKGROUND

2.1 Site Description

The Site is located near Guadalupe Road and Cooper Road in Gilbert, Arizona. The boundaries of the Site subject to remedial action include the area located between the West Cullumber Avenue to the south, North McQueen Road to the west, West Houston Avenue to the north, and North Golden Key Drive to the east (Figure 1). The Site boundaries are defined by the extent of the PCE groundwater plume exceeding the AWQS of 5 µg/L (Figure 2). The groundwater plume underlies an area that is a mix of industrial, commercial, and residential land uses.

The vadose zone and groundwater impacts associated with the Site are primarily attributed to historical releases originating from a source area identified at the former Unichem facility at 619 West Commerce Avenue (Figure 1). The former Unichem facility occupied approximately four acres of land, north of the SRP Western Canal. The Unichem facility produced copper sulfate from scrap metal from approximately 1977 to 1983. From July 1983 to March 1984, Aztec Resources, Inc. operated a gold extraction plant at the facility, using cyanide baths to extract gold from scrap materials and mine tailings. In 1988, the western portion of the facility was used as a vehicle testing station by Hamilton Testing Systems. Currently, the facility is used for storage of construction materials by Skyline Steel, Inc. In June 2004, The Site was placed on the WQARF Registry with an Eligibility and Evaluation score of 33 out of a possible 120.

2.2 Source of Release

The source of COC contamination at the Site is historical releases of VOCs that occurred at the former Unichem facility which resulted in subsurface impacts to soil, soil vapor, and groundwater. The main source of these impacts was a former drywell constructed at the facility in 1977 which may have been used for waste disposal.

2.3 Need for Remedial Action

2.3.1 Soil/Soil Vapor

PCE is present in the soil and soil vapor within the source area of the Site at concentrations that exceed Arizona's remediation standards for soil. A soil vapor plume with the potential to impact groundwater is present at the source area. Thus, remedial action is needed at the Site to remediate impacted soil and soil vapor at the source area.

2.3.2 Groundwater

PCE and TCE are present in the groundwater at the Site at concentrations that exceed the AWQS. Although groundwater at the Site is not currently used as a drinking water supply, the regional

aquifer is considered a water supply for well owners in the vicinity of the Site. Therefore, the aquifer must be protected and a remedial action for groundwater at the Site is required.

2.4 Chronology of Site Activities

A detailed history of the remedial investigations and ERAs conducted at the Site is presented in the RI Report, the FS Report, and the PRAP. A brief summary of these activities is presented below:

1990: COCs were detected in soils and soil vapor at the source area.

1994: COCs were detected in groundwater at concentrations above applicable AWQS.

1996 to 2003: Groundwater investigations were conducted. Results from the investigations indicated concentrations of PCE as high as 6,600 µg/L in groundwater.

2004: The Site was placed on the WQARF Registry with an Eligibility and Evaluation score of 33 out of a possible 120.

2005 to 2009: Additional characterization of soil, soil vapor, and groundwater was conducted. An ERA evaluation was conducted, resulting in an SVE pilot test in 2007. Full scale SVE was initiated in 2008 and AS in 2009

2010: Further groundwater characterization was conducted, a pump and treat system was installed and its operation commenced, and addition vapor extraction wells were added to the SVE system.

2011 to 2013: Groundwater characterization and operation of the SVE, AS, and pump and treat systems continued. An additional source area soils investigation and SVE expansion were completed in 2012.

2014: Operation of the SVE, AS, and pump and treat systems ceased; evaluated the need for continued operation.

2015: The RI Report and FS Work Plan were finalized.

2016: Operation of the SVE system resumed, additional groundwater and source area soils characterization was conducted, and a groundwater model was built to evaluate natural attenuation at the Site.

2018: Operation of the SVE system continued, additional groundwater and source soils characterization was conducted, and the FS Report was finalized.

2019: Rebound testing of the SVE system was initiated and the PRAP was finalized.

2.5 Source Area and Plume Extent

Data collected during the RI confirmed that contaminants were released into the soil and groundwater at the Site. COCs detected above regulatory levels at the Site during the RI included PCE and TCE in groundwater and PCE, arsenic, and copper in source area soils. Arsenic and copper are no longer considered COCs because additional investigation conducted after issuance of the RI Report demonstrated that arsenic and copper in soils do not impact the achievement of ROs as they do not exceed GPLs, have not been detected above AWQSs, and do not pose a risk of human exposure at concentrations exceeding rSRLs (ADEQ, 2019b). Currently, Site COCs are PCE and TCE in groundwater and PCE in source area soils. The source of the soil and groundwater contamination at the Site is the former Unichem facility. The soil contamination is confined to the former Unichem facility source area while the groundwater contamination extends across the Site. A description of the soil and groundwater contamination at the Site is presented in the following sections.

2.5.1 Soil and Soil Vapor Contamination

The former drywell at the former Unichem facility is the source of PCE contamination at the Site. The highest recorded concentration of PCE in soils was 3,900 mg/kg, detected in a soil sample collected at 70 feet below ground surface (bgs) from boring B-W1 (in the immediate vicinity of the former drywell) in 2012. This detection exceeded the minimum GPL (1.3 mg/kg) and the nrSRL (13 mg/kg) for PCE. SVE was initiated in 2008 to remove COCs from soil and soil vapor around the former drywell. Additional soil samples were collected in 2018, after 10 years of SVE operation. The highest concentration of PCE detected in 2018 was 51 mg/kg from a soil sample collected at 70 feet bgs from boring SVE-109 (which was completed as an SVE well in the immediate vicinity of the former drywell). PCE was not detected above nrSRLs in any other sample. The decrease in detected PCE concentrations in soil between 2012 and 2018 was two orders of magnitude and indicated that SVE was successfully removing COCs from the vadose zone, but that concentrations of PCE still exceeded applicable regulatory standards in the vicinity of the former dry well only at a depth of 70 feet bgs.

2.5.2 Groundwater Contamination

PCE and TCE are the COCs in groundwater at the Site. Based on groundwater monitoring data, the predominant COC in groundwater is PCE, whereas TCE is less prevalent. Concentrations of PCE in groundwater consistently exceed the AWQS of 5 µg/L. The highest recorded detection of PCE in groundwater at the Site was 6,600 µg/L detected in a groundwater sample collected from monitoring well MW-101 in 1996. The highest recorded detection of TCE in groundwater at the Site was 40 µg/L detected in a groundwater sample collected from monitoring well MW-106 in 2007. The areal extent of PCE contamination in groundwater at the Site eclipses that of TCE. Therefore, the lateral boundary of the groundwater plume is defined by groundwater exceeding the AWQS of 5 µg/L for PCE (Figure 2).

Monitoring wells MW-104S, -104M, and 104D are three co-located wells screened from 115-165, 185-225, and 580-610 feet bgs, respectively. Groundwater monitoring data from these wells and grab samples collected during the installation of MW-104M indicate that the bulk of PCE contamination is limited in depth from the groundwater surface (about 100 to 110 feet bgs) to about 185 feet bgs.

The groundwater PCE concentration and elevation contours presented on Figures 2 and 3, respectively, were developed using data collected in October 2019 from wells within and near the Site (Wood, 2020). A summary of the groundwater sample results is presented below:

- PCE concentrations ranged from non-detect to a maximum of 19 µg/L;
- TCE was only detected in a sample collected from MW-117 at a concentration of 5.9 µg/L; and
- Groundwater generally flowed west-northwest with a gradient of 0.0004 feet/foot.

In summary, the concentrations of COCs in the groundwater at the Site have declined with time, but still exceed AWQS. The decreasing PCE and TCE concentrations indicate that the combination of MNA and source area ERAs have successfully diminished COC impacts to groundwater.

3.0 SELECTED REMEDY

The FS Report evaluated remedial alternatives for COCs in soil and groundwater at the Site. The remedial alternatives were developed to meet the ROs described in the RO Report (ADEQ, 2015b). The Selected Remedy proposed by the FS Report and carried forward to the PRAP includes the following components:

- SVE – Up to 5 years of continued operation of the SVE system to provide source control through the removal of COC mass in the vadose zone, which will mitigate the potential for ongoing groundwater impacts from the residual COCs.
- MNA – Up to 18 years of continued semiannual groundwater elevation measurements and collection of groundwater samples for COC analysis from the current monitoring well network to evaluate MNA of groundwater impacts, as well as plume stability and COC concentration trends.
- The Selected Remedy includes the following contingencies:
 - Additional SVE – If COC analytical results from the soil and/or soil vapor confirmation sampling exceed nrSRLs, minimum GPLs, or Site-specific soil vapor screening levels, then the SVE system may be operated for up to an additional five years.
 - Site-Specific Risk Assessment and DEUR– If COC soil/soil vapor analytical results from SVE confirmation sampling exceed nrSRLs and/or minimum GPLs, a Site-specific risk assessment may be performed to evaluate potential health risks via exposure pathways for receptors, as well as an evaluation of the potential for COCs to impact groundwater. Depending on the findings of the risk assessment, the implementation of a DEUR may be used in conjunction with an engineering or administrative control to ensure the protection of human health and the environment.
 - Wellhead Treatment – If Site COCs cause an exceedance of AWQSs at a point of drinking water regulatory compliance, then wellhead treatment for the impacted SRP and/or TOG supply well(s) will be used to treat impacted groundwater produced by the well(s).
 - Additional MNA – If COC concentrations continue to exceed AWQS at the end of the timeframe assumed by the remedy, then the MNA program may be extended for up to 10 years.

3.1 Selected Remedy Summary

Source Area Vadose Zone SVE

SVE remediates contaminated soil by extracting soil vapors from the subsurface, treating them at the surface, and then discharging the treated vapors to the atmosphere. SVE has been demonstrated as an effective ERA at the Site and is anticipated to be highly effective remedy for COC source control in the vadose zone.

The existing SVE system at the source area will continue to be operated using vapor-phase granular activated carbon to treat the extracted soil vapor. The SVE system consists of three dual-nested and six individual SVE wells drilled to various depths within the vadose zone around the former drywell source area (the primary source of COC release to the subsurface). This remedial measure will focus on source control through the removal of COC mass in the vadose zone, which will mitigate the potential for ongoing groundwater impacts from residual COCs desorbing from fine-grained soils. The layout of the SVE system is shown on Figure 4.

As the system continues to operate, it will be optimized, as necessary, to maximize the efficiency of the system. Measurements of operational parameters will be used to assess system performance and for system optimization. SVE system optimization will be conducted throughout the operational lifetime of the system and operational schedules may be adjusted to enhance COC removal efficiency.

Operation of the SVE system will be conducted in compliance with a Maricopa County Air Quality Department air permit. This will include quarterly reporting, as required in the terms of the permit.

The duration of SVE system operation is estimated to be up to 5 years. The actual duration will be based on achievement of soil ROs, SVE system performance, and COC monitoring data collected during system operation.

Operation of the SVE system will be terminated based upon the following criteria:

- Demonstration of COC concentrations in soil/soil vapor below applicable standards by post-rebound test confirmation sampling;
- Demonstration that COCs in soil vapor no longer contribute to groundwater COC exceedances; and
- The contingent placement of a DEUR on the source area, if deemed necessary and appropriate.

Groundwater MNA

MNA is a remedial measure that involves routine groundwater sampling and analysis to monitor the results of one or more naturally occurring physical, chemical, or biological processes that reduce the mass, toxicity, volume, or concentration of chemicals in groundwater. MNA is a mechanism by which COCs are reduced by natural means without other control, removal, treatment, or aquifer-modifying activities. These in-situ processes may include dilution, adsorption, volatilization, precipitation, and biological degradation of the contaminants in the groundwater.

MNA at the Site will consist of routine groundwater monitoring and sampling to evaluate changes in groundwater contamination over time. Groundwater monitoring data will be used to evaluate plume migration, stability, and natural attenuation. MNA will continue until the concentrations of COCs in groundwater are below AWQS. Groundwater modeling presented in the FS Report indicates that COC concentrations in groundwater will fall below AWQS within 18 years.

The MNA program will include semiannual water level monitoring and collection of groundwater samples for COC analysis from up to 33 wells within the current monitoring well network. As the concentration of COCs in groundwater decreases over time, the monitoring frequency may be reduced, and the number of wells selected for groundwater monitoring and sampling may be decreased. The number of wells monitored and the frequency of monitoring will be evaluated after MNA monitoring events, with changes documented in the Periodic Reviews of remedy results.

The total duration of the MNA program is estimated to be 18 years based on groundwater modeling. The actual duration will be based on the achievement of ROs for groundwater. Monitoring wells included in the MNA well network are listed in Table 1 and shown on Figure 1.

Table 1 - MNA Monitoring Well Network

WELL I.D.	ADWR Number	Well Diameter (in)	Total Well Depth (ft bgs)	Screened Interval (ft bgs)	Top of Casing Elevation ⁽¹⁾	Location Coordinates ⁽¹⁾	
						Northing (ft)	Easting (ft)
MW-101	545252	4	165	120-160	1226.2	857657	734873.08
MW-102	545253	4	165	120-160	1228.32	857622.06	734735.31
MW-103	545254	4	165	120-160	1226.69	857555.1	734842.45
MW-104S	598801	4	170	115-165	1222.98	859093.85	733526.87
MW-104M	919856	4	265	185-255	1222.76	859116.43	733527.45
MW-104D	598802	5	615	580-610	1223.42	859074.9	733526.42
MW-105	212563	4	165	120-160	1229.11	858095.96	735078.51
MW-106	212564	4	164	119-159	1223.16	857840.25	733574.99
MW-107	906992	4	165	110-160	1225.32	858730.48	735460.5
MW-108	907007	4	165	110-160	1219.14	857895.39	732250.4
MW-109	907008	4	165	110-160	1220.18	859346.07	732836.35
MW-110	908516	4	165	110-160	1222.89	859956.5	733380.72
MW-111	908517	4	165	110-160	1224.99	859580.62	735153.44
MW-112	908518	4	165	110-160	1229.14	857923.04	736150.97
MW-113	913316	4	150	90-145	1219.1	861613.69	732693.72
MW-114	913317	4	150	90-145	1223.76	860496.21	734877.06
MW-115	222549	4	150	90-145	1222.97	857280.76	733192.08
MW-116	222550	4	150	90-145	1223.58	858427.64	734326.2
MW-117	222551	4	150	90-145	1225.38	857903.73	734569.09
MW-118	222552	4	150	90-145	1230.61	856966.48	734172.9
MW-119S	222553	4	150	90-145	1230.94	857353.13	733623.68
MW-119D	222554	5	615	570-610	1231.25	857368.29	733637.6
MW-120	918227	4	217	142-212	1216.56	859772.88	731300.13
MW-121	919857	4	279	203-273	1214.57	861799.34	730305.54
MW-122	918227	4	350	223-323	1212.53	864069.17	728909.02
MW-123	921860	4	285	117-217	1214.24	857012.07	726964.64
MW-124	922123	4	346	120-180	1212.37	860539.55	728832.04
G-7	524081	8	250	150-250	1232.43	857369.25	735290.06
G-8	524082	8	250	150-250	1232.41	857407.3	735885.7
G-9	539953	6	225	140-225	1222.55	858575.03	733527.53
G-10	539954	8	250	150-250	1230.45	857362.03	734441.70
R-1	595204	10.75	295	180-290	1214.97	858018.36	729488.76

Notes:

amsl - above mean sea level

bgs - below ground surface

I.D. - identification

in - inches

ft - feet

⁽¹⁾ NAVD 88, ft amsl

3.2 Selected Contingencies Summary

Additional Soil Vapor Extraction

The SVE system may be operated for up to an additional five years if COC analytical results from soil and/or soil vapor confirmation sampling exceed nrSRLs, minimum GPLs, or Site-specific soil vapor screening levels. The estimated cost for this contingency is \$400,000.

Site-Specific Risk Assessment and DEUR

A site-specific risk assessment evaluates conditions, assumptions, and data specific to an actual site in order to assess risk to potential human, ecological, and environmental receptors. A site-specific risk assessment may be used to create contaminant concentration thresholds that are specific to a site and its conditions. These thresholds may be used instead of, or evaluated against, generic thresholds such as narrative GPLs, which use a generic set of assumptions and conditions regardless of site-specific conditions, assumptions, and data.

A DEUR is a restrictive covenant designed to document engineering and institutional controls and allow closure of a site with contamination above rSRLs while ensuring appropriate future use of a contaminated site. A DEUR must be agreed to by the owner of a parcel, and is attached to the deed of the parcel it affects

A Site-specific risk assessment may be performed to evaluate potential health risks to receptors via exposure pathways and the potential for COCs to impact groundwater. A Site-specific risk assessment would be performed if COC soil/soil vapor analytical results from SVE confirmation sampling exceed nrSRLs and/or minimum GPLs. Depending on the findings of the risk assessment, the implementation of a DEUR may be used in conjunction with engineering and/or administrative controls to ensure the protection of human health and the environment. The estimated cost for this contingency is \$80,000.

Wellhead Treatment

The contingency for wellhead treatment would be implemented if COC concentrations exceed applicable drinking water standards at regulatory points of compliance due to Site groundwater impacts. The most likely candidates for wellhead treatment are SRP supply wells 28E-1.0S (Arizona Department of Water Resources [ADWR] 55-617095) and 29E-1.0S (TOG#15, ADWR 55-542431), both of which are near the Site. SRP supply well 29E-1.5S (ADWR 55-617105) is also near the Site, but historical data indicates that this well acts as a conduit for COC migration to deeper within the aquifer when it is in service. Therefore, this well is not currently used to supply water and it is unlikely that the well will return to service due to its ability to cause contaminant migration.

For costing purposes, it was assumed that both SRP production wells 29E-1.0S and 28E-1.0S would receive wellhead treatment, but any local supply well of similar production capacity would have similar costs. It was also assumed that the land surrounding either of the wellheads could be purchased or expanded for the implementation of wellhead treatment, but these property costs were not included in the estimates. Wellhead treatment would consist of a liquid-phase granular activated carbon (LGAC) treatment system to remove COCs from extracted groundwater from the production well. It is assumed that the system to treat SRP production well 28E-1.0S would be designed for a maximum flow rate of approximately 3,600 gallons per minute (gpm), due to the registered production capacity of 3,598 gpm. For treatment of SRP production well 29E-1.0S, the system would be designed for a maximum flow rate of approximately 2,800 gpm, due to the registered capacity of 2,737 gpm. Treated groundwater from either system would then be pumped into the existing SRP water conveyance system.

The estimated cost for the contingency of implementing wellhead treatment for SRP supply well 28E-1.0S is \$8.2 million over 15 years. The estimated cost for the contingency of implementing wellhead treatment for 29E-1.0S is \$8.2 million over 15 years. Estimated costs associated with wellhead COC treatment include design, treatment system construction, LGAC changeouts, OM&M, and project management. Should both wells require wellhead treatment, the estimated cost for this contingency is \$16.4 million.

Additional Monitored Natural Attenuation

The contingency for additional MNA would be implemented if COC concentrations in groundwater continue to exceed AWQS after the 18 year timeframe assumed in the remedy. Additional MNA would consist of a 10 year extension to the MNA program described in this ROD. The estimated cost for this contingency is \$1.7 million.

3.3 Achievement of Remedial Objectives and Remedial Action Criteria

In accordance with A.A.C. R18-16-406(I), ADEQ prepared a Remedial Objectives Report that established ROs for the current and reasonably foreseeable uses of land and waters of the State of Arizona that have been or are threatened to be affected by a release of a hazardous substance. In accordance with A.A.C. R18-16-407, the ROs were evaluated in the FS Report and, according to A.A.C. R18-16-408 and A.R.S. §49-287.04, considered in development of the remedial action alternatives presented in the PRAP Report.

The RO for soil at the Site is:

To restore soil conditions to the remediation standards for intended end use specified in A.A.C. R18-7-203 (specifically background remediation standards prescribed in R18-7-204, predetermined remediation standards prescribed in R18-7-205, or site specific remediation standards prescribed in R18-7-206) that are applicable to the hazardous substances identified.

This action is needed for the present time and for as long as the level of contamination in the soil threatens its intended end use.

SVE has been demonstrated effective at remediating Site soil contamination in the vicinity of the former drywell source area. Only soils around the former drywell source area currently contain COCs at concentrations which do not meet the RO for soils. Therefore, the Selected Remedy, which includes continued operation of the SVE system at the source area, will meet the RO for soils.

The RO for groundwater at the Site is:

To protect, restore, replace or otherwise provide a water supply for potable or nonpotable use by currently impacted, municipal, domestic, agricultural/irrigation and recreational well owners within or near the Cooper Road and Commerce Avenue WQARF site if the current and reasonably foreseeable future uses are impaired or lost due to contamination from the Site. Remedial actions will be in place for as long as need for the water exists, the resource remains available and the contamination associated with the Cooper Road and Commerce Avenue WQARF site prohibits or limits the use of groundwater for its intended end use. Remedial actions to meet ROs will be implemented upon issuance of the ROD. If there is an imminent risk to human health or the environment, then an ERA may be initiated prior to implementation of the ROD.

SVE has been demonstrated effective at remediating Site soil contamination, which acts as the source of groundwater contamination. The Selected Remedy will achieve ROs for groundwater use by treating the source of contamination to groundwater with SVE and using MNA to remediate the groundwater plume until COC concentrations are less than the AWQS. The wellhead treatment contingency protects future groundwater use at the Site, should it become impaired or lost.

The land and water use evaluation section of the RI Report identified no uses of surface water in the area of the site. Therefore no ROs for surface water were included in the RO Report.

Although no ROs for surface water exist, several production wells present within the vicinity of the Site provide water for agricultural use. The water from these wells is conveyed through a system of laterals and canals, wherein it is subject to regulation as surface water. The current use of this water is not impacted by Site COCs, but the contingency for wellhead treatment encompasses these wells and provides protection for future use as a drinking water supply.

Based on these determinations, the Selected Remedy demonstrates:

- The ability to achieve the ROs with regard to both land use and groundwater use;
- Consistency with plans of affected water providers and the general land use plans of the local government(s); and
- Compatibility with regard to practicability, cost, risk, and benefit.

3.4 Compliance with Arizona Administrative Code and Arizona Revised Statutes

In 2004, the Site was placed on the WQARF Registry by ADEQ with a score of 33 out of a possible 120. In 2015, ADEQ issued the RI Report for public comment to meet the requirements under A.A.C. R18-16-404(C)(1)(b) and A.A.C. R18-16-406(F). The report documented the results of the field investigation activities that were conducted between 1990 and 2015. Solicitation for ROs to be included in the RO Report was conducted per A.A.C. R18-16-406(I). Based on the solicitation, Land and Water Use Study, and water management plans of water providers, a Draft RO Report was prepared and submitted for public comment prior to finalizing the RI Report. The RO Report was finalized in 2015 and included as an appendix to the RI Report.

An FS Work Plan (ADEQ, 2015a) was prepared in April 2015 and a public notice was issued in accordance with the requirements outlined in A.A.C. R18-16-404(C)(1)(d). An FS Report was prepared documenting the development and evaluation of alternatives for remediation of the Site and providing a recommendation for a final remedy capable of achieving the ROs developed for the Site.

A PRAP was prepared based on the work executed under the FS Work Plan and contained in the FS Report. The PRAP documented the results of the FS and evaluated the selected remedy. SVE and MNA were selected as the remedy for the Site. The Selected Remedy satisfies A.R.S. §49-282.06, as it:

- Adequately assures the protection of public health, welfare, and the environment.
- To the extent practicable, provides for the control, management and cleanup of COC contamination, maximizing beneficial use of the groundwater use; and
- Is reasonable, necessary, cost-effective, and technically feasible.

3.5 Community Involvement and Public Comment Requirements

A Community Advisory Board (CAB) was formed in 2006 and met on a regular basis to discuss the issues and status of investigation and cleanup activities conducted at the Site. These meetings were open to the public. The most recent CAB meeting was held on August 20, 2019. A Community Involvement Plan was established for the Site in 2004 and regularly updated in subsequent years (ADEQ, 2019a). The specific public participation activities that have been completed for the Site are presented in Table 2.

Table 2 - Community Involvement Activities

Community Involvement Activity	Regulatory Citation/Rule	Date
Notice of the Site listing on the Registry	A.R.S. § 49-287.01(C) A.R.S. § 49-289.03(A)(1)	February 2004
Establish a preliminary community involvement area and provide written notice to the community on hazardous substance contamination in the area	A.R.S. § 49-289.02	September 2004
Establish a Community Involvement Plan	A.R.S. § 49-287.03(D) A.R.S. § 49-289.03(B) A.R.S. § 49-289.03(C) A.A.C.R18-16-404(C)(1)(i) A.A.C. R18-16-404(C)(1)(j) A.A.C. R18-16-404(C)(1)(k) A.A.C. R18-16-404(C)(1)(o)	2004
Notice of Remedial Investigation scope of work, fact sheet, and outline of Community Involvement Plan availability	A.R.S. § 49-287.03(B) A.R.S. § 49-287.03(C) A.A.C. R18-16-301(C) A.A.C. R18-16-403(F) A.A.C. R18-16-403(G) A.A.C. R18-16-404(C)(1)(a) A.A.C. R18-16-406(B) A.A.C. R18-16-406(D)	2004
Establish a selection committee to choose Community Advisory Board members	A.R.S. § 49-289.03(D)	March 2006
Establish a Community Advisory Board	A.R.S. § 49-289.03(C) A.R.S. § 49-289.03 (E) A.R.S. § 49-289.03(F)	June 2006
Notice of Draft Remedial Investigation Report for review and hold a public meeting to solicit Remedial Objectives	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(b) A.A.C. R18-16-406(F) A.A.C. R18-16-406(I)(1) A.A.C. R18-16-406(I)(2)	October & December 2014
Notice of Proposed Remedial Objectives Report for public comment and Final Remedial Investigation Report availability	A.A.C. R18-16-301(C) A.A.C. R18-16-404(C)(1)(c) A.A.C. R18-16-406(I)(5) A.A.C. R18-16-406(J)	February & July 2015
Notice of Feasibility Study Work Plan availability	A.A.C. R18-16-404(C)(1)(d) A.A.C. R18-16-407(B)	July 2015
Notice of the Feasibility Study availability	Not Required	February 2018
Notice of the Proposed Remedial Action Plan for public comment	A.R.S. § 49-287.04(B) A.R.S. § 49-289.03(A)(2) A.A.C. R18-16-301(C) A.A.C.R18-16-404(C)(1)(e) A.A.C. R18-16-408(A)	July 2019
Notice of the Record of Decision and Responsiveness Summary availability	A.R.S. § 49-287.04(G) A.A.C. R18-16-404(C)(1)(f) A.A.C. R18-16-410	TBD

Notes:
A.A.C. - Arizona Administrative Code
A.R.S. - Arizona Revised Statute

3.6 Schedule

The schedule for implementing the Selected Remedy will be dictated by the WQARF program priorities and available funding after the ROD has been executed and entered into the Administrative Record. SVE is scheduled to be conducted for up to 5 years. MNA will be conducted until the COCs are no longer present above their respective AWQS or the Director determines that the conditions of A.R.S. §49-282.06(D) have been met. Based on current groundwater data trends, ADEQ estimates groundwater remediation at the Site will be needed for up to 18 years.

During implementation of the Selected Remedy, Periodic Site Reviews will be performed at a minimum of every five years to determine the viability of the remedy.

Contingencies to implement additional MNA of groundwater, additional SVE of source area soils, and/or conduct a Site-specific risk assessment of source area soils are included should these be determined to be necessary based on intermediate monitoring results and Periodic Site Reviews. In addition, a contingency for wellhead treatment by ADEQ is included if COC concentrations exceed applicable drinking water standards at regulatory points of compliance due to Site groundwater impacts at production wells in the vicinity of the Site.

Upon completion of remedial actions, all remedial equipment and wells associated with the Site will be abandoned in accordance with the PRAP and applicable ADWR requirements as promulgated in A.A.C. R12-15-816. After completion of the above actions, ADEQ will delist the Site in accordance with A.R.S. §49-287.01(K).

4.0 RESPONSIVENESS SUMMARY

In accordance with A.A.C. R18-16-410(B)(2) and A.R.S. §49-287.04(F), a comprehensive responsiveness summary was prepared to identify and respond to all comments received on the PRAP at the conclusion of the public comment period. A 90-day comment period for the PRAP was held starting on July 18, 2019 through October 16, 2019. Three communications containing comments were received during the comment period, as follows:

- One verbal communication, voted unanimously to be made official, from the CAB during a public meeting held on August 20, 2019.
- One letter from Eric Braum with the Town of Gilbert, dated September 9, 2019.
- One letter from Andrea Martinez with SRP dated, October 16, 2019.

No other comments were received regarding the PRAP. A copy of the comment letters, a transcription of the CAB comments, and the ADEQ response to the comments are presented in Appendix A.

5.0 COST

As required in A.A.C. R18-16-410(C), this section presents the costs (excluding non-recoverable costs) previously incurred by ADEQ during Site characterization and implementation of the ERAs and presents the costs of the Selected Remedy.

5.1 Historic Costs

The Site was placed on the WQARF Registry in 2004 due to the discovery of soil and groundwater contamination at the Site. Investigation and remediation of the Site by ADEQ began in 2005 and will continue as the Selected Remedy is implemented. ERAs were conducted at the Site starting in 2007 and were instrumental in reducing contaminant concentrations and risk of exposure. Significant costs have been incurred by ADEQ during characterization of the Site and implementation of the ERAs. These activities to date have cost ADEQ \$4,621,851.74.

5.2 Future Costs

The estimated life cycle cost for implementing the Selected Remedy at the Site is about \$2,874,000 and is summarized in Table 3. The estimated costs for the remedy contingencies are about \$18,580,000 and are summarized in Table 4.

Table 3 – Selected Remedy Cost Summary

Year	Description	Cost
1	Soil Vapor Extraction Operation & Maintenance and Monitored Natural Attenuation	\$190,000
2	Soil Vapor Extraction Operation & Maintenance and Monitored Natural Attenuation	\$195,700
3	Soil Vapor Extraction Operation & Maintenance and Monitored Natural Attenuation	\$201,571
4	Soil Vapor Extraction Operation & Maintenance and Monitored Natural Attenuation	\$207,618
5	Soil Vapor Extraction Operation & Maintenance and Monitored Natural Attenuation	\$213,847
6	Soil Vapor Rebound Testing , Remediation System Decommissioning, and Monitored Natural Attenuation	\$284,335
7	Monitored Natural Attenuation	\$95,524
8	Monitored Natural Attenuation	\$98,390
9	Monitored Natural Attenuation	\$101,342
10	Monitored Natural Attenuation	\$104,382
11	Monitored Natural Attenuation	\$107,513
12	Monitored Natural Attenuation	\$110,739
13	Monitored Natural Attenuation	\$114,061
14	Monitored Natural Attenuation	\$117,483
15	Monitored Natural Attenuation	\$121,007
16	Monitored Natural Attenuation	\$124,637
17	Monitored Natural Attenuation	\$128,377
18	Monitored Natural Attenuation	\$132,228
19	Site Closure and Well Abandonment	\$225,000
TOTAL SELECTED REMEDY COST		\$2,873,753

Notes:

Costs assumes inflation rate of 3%

Table 4 – Contingency Cost Summary

Description	Cost
5 Years Additional Soil Vapor Extraction	\$400,000
Site-Specific Risk Assessment and Designated Environmental Use Restriction	\$80,000
15 Years Wellhead Treatment	\$16,400,000
10 Years Additional Modified Monitored Natural Attenuation	\$1,700,000
TOTAL CONTINGENCY COST	\$18,580,000

Notes:

Costs assume inflation rate of 3%

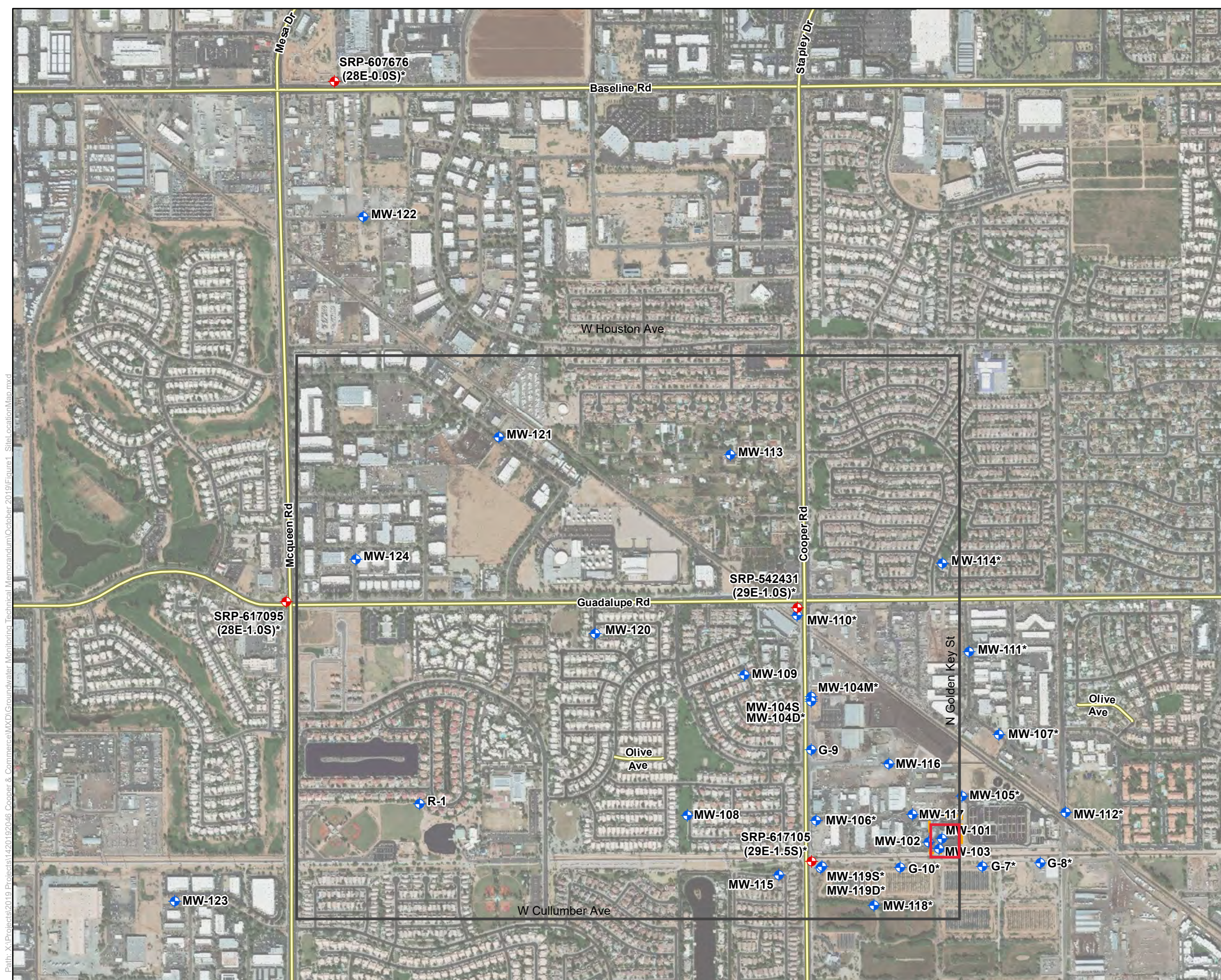
6.0 CONCLUSIONS

The Selected Remedy chosen for the Site consists of SVE at the source area and MNA within the groundwater contaminant plume. Contingencies include additional SVE, Site-specific risk assessment and DEUR, wellhead treatment, and additional MNA. Per the Selected Remedy, SVE will be conducted for up to 5 years or until the RO for soil has been met. MNA will be conducted for up to 18 years or until the RO for groundwater has been met. At such time, remedial and monitoring activities will cease and all equipment (i.e., treatment wells, monitoring wells, etc.) associated with the Site investigation and remediation will be abandoned in accordance with the PRAP and ADWR requirements as stated in A.A.C. R12-15-816. At such time there will be no need to protect human health and the environment and the Site will be delisted as stated in A.R.S. §49-287.01(K). At any time prior to completion of the ROD, a portion of the Site may be issued a No Further Action in accordance with A.R.S. §49-287.01(F) & (G).

7.0 REFERENCES

- ADEQ, 2015a. *Feasibility Study Work Plan, Cooper Road and Commerce Avenue, WQARF Registry Site, Gilbert, Arizona*. April
- ADEQ, 2015b. *Remedial Objectives Report, Cooper Road and Commerce Avenue, WQARF Registry Site, Gilbert, Arizona*. February.
- ADEQ, 2019a. *Community Involvement Plan, Cooper Road and Commerce Avenue, WQARF Registry Site, Gilbert, Arizona*. June.
- ADEQ, 2019b. *Proposed Remedial Action Plan, Cooper Road and Commerce Avenue, WQARF Registry Site, Gilbert, Arizona*. June.
- Geosyntec, 2018a. *Feasibility Study, Cooper & Commerce WQARF Site, Gilbert, Arizona*. February.
- Geosyntec, 2018b. *Source Area Soils Evaluation and SVE Well Installation, Cooper and Commerce WQARF Site, Gilbert, Arizona, Technical Memorandum*. June.
- HGC, 2015. *Remedial Investigation Report, Cooper and Commerce WQARF Site, Gilbert, Arizona*. June.
- Wood, 2020. *Semiannual Groundwater Monitoring Technical Memorandum – October 2019 Cooper and Commerce WQARF Site, Gilbert, Arizona*. January.

FIGURES



Vicinity Map

Legend

- Monitoring Well Location
- SRP Well Location
- Source Area
- Site Boundary

Notes:

- MW-110 Groundwater Monitoring Well Identification
- * Not Included in Semiannual Monitoring
- SRP Salt River Project
- WQARF Water Quality Assurance Revolving Fund

0 500 1,000
Feet



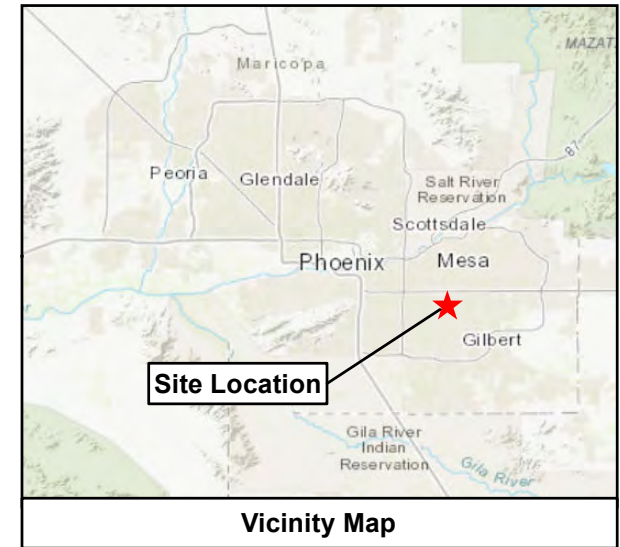
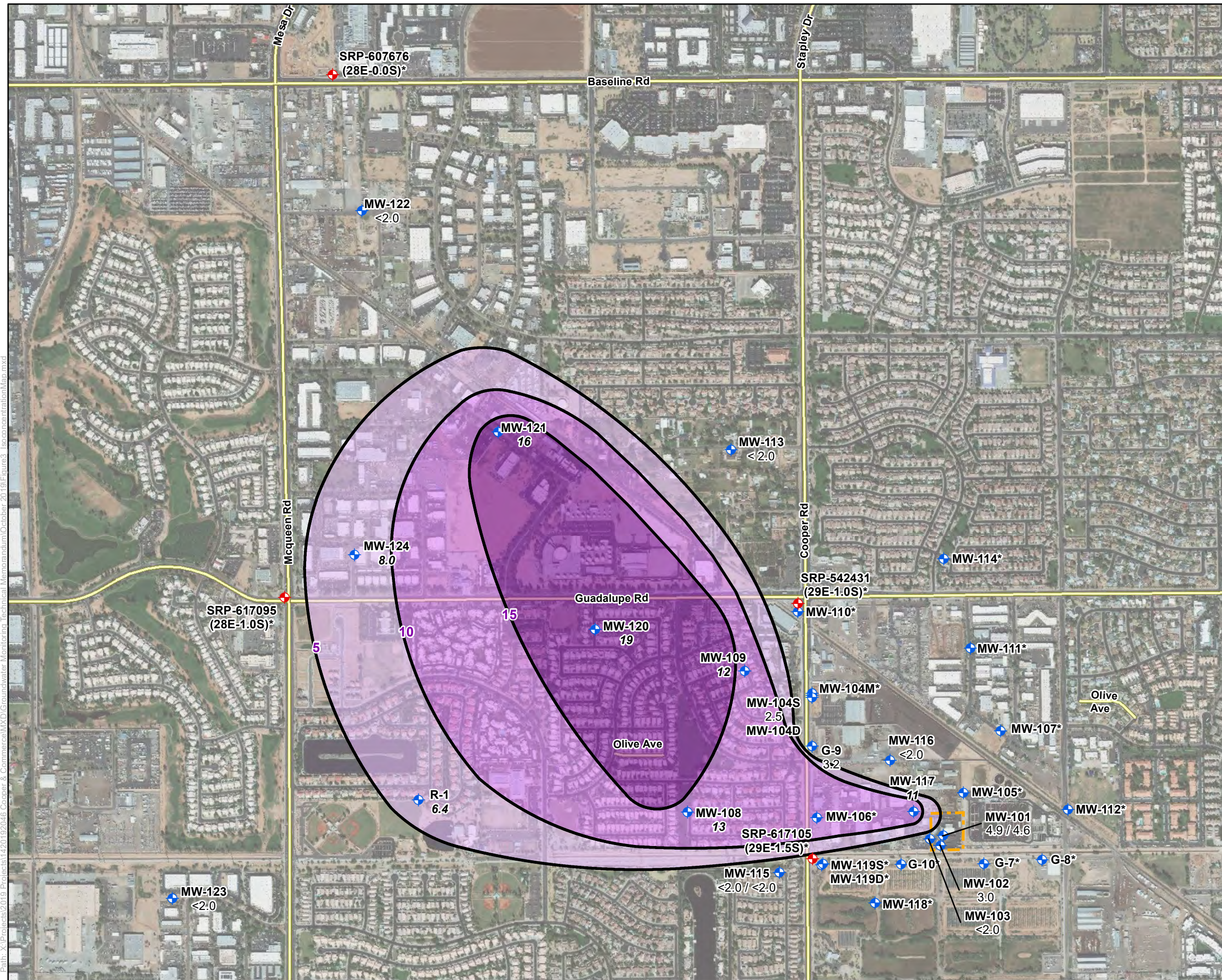
Cooper and Commerce WQARF
Record of Decision
Gilbert, Arizona

Figure
1

Site Location & Well Map



Path: X:\Projects\2019 Projects\1420192046 Cooper & Commerce\MXD\Groundwater Monitoring Technical Memorandum\October 2019\Figure3 IsoconcentrationMap.mxd



Legend

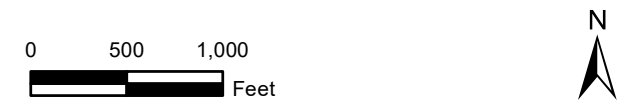
- Monitoring Well Location
- SRP Well Location
- Source

Approximate Distribution of PCE above 5 µg/L (Dash Where Inferred)

- 5 µg/L
- 10 µg/L
- 15 µg/L

Notes:

MW -102	Groundwater Monitoring Well Identification
3	PCE Concentration (µg/L)
4.9 / 4.6	Original Result / Duplicate Result
13	Results that are bolded and italicized exceed the Aquifer Water Quality Standard of 5 µg/L
*	Not Included in Semiannual Monitoring
PCE	Tetrachloroethene
SRP	Salt River Project
WQARF	Water Quality Assurance Revolving Fund

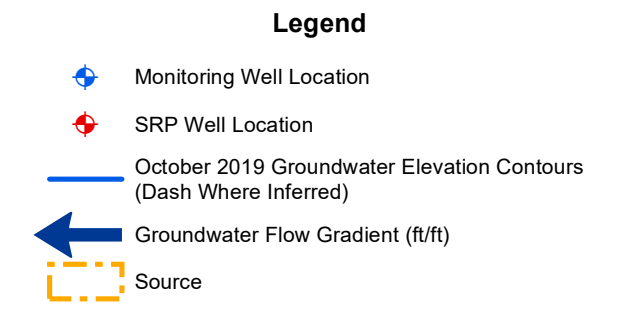
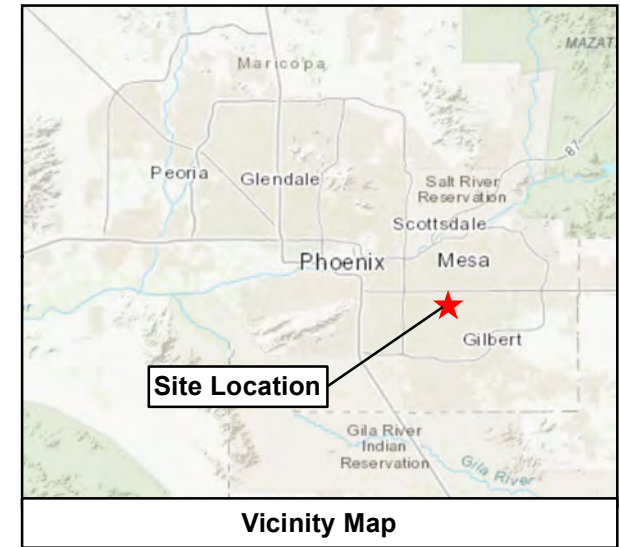
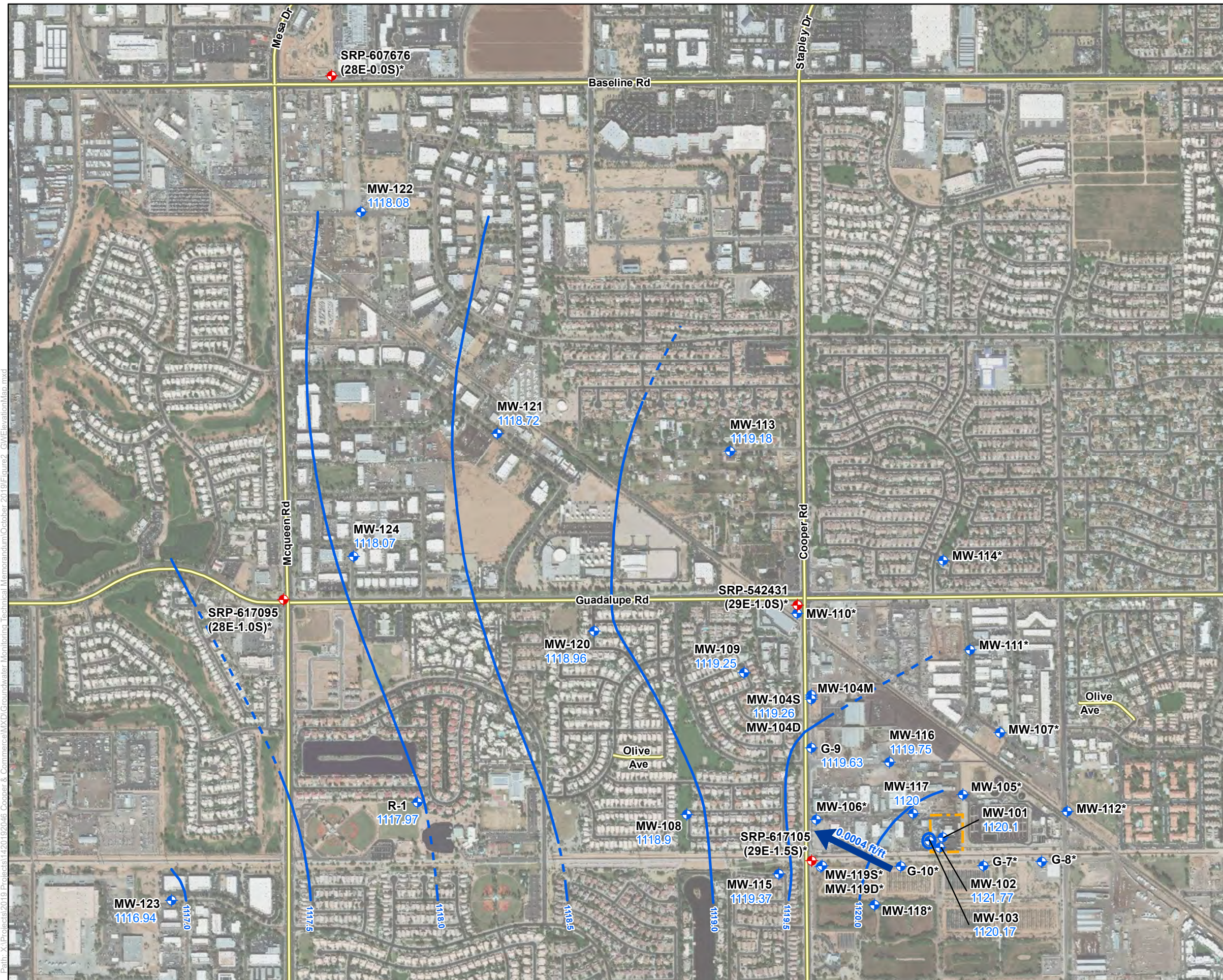


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Figure 2 **October 2019
Site PCE Concentrations**

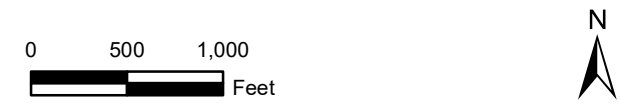


Path: X:\Projects\1420192046 Cooper & Commerce\MXD\Groundwater Monitoring Technical Memorandum\October 2019\Figure2 GW ElevationMap.mxd



Notes:

MW -101 Groundwater Monitoring Well Identification
1120.10 Groundwater Elevation (ft amsl)
* Not Included in Semiannual Monitoring
ft feet
amsl above mean sea level
SRP Salt River Project
WQARF Water Quality Assurance Revolving Fund

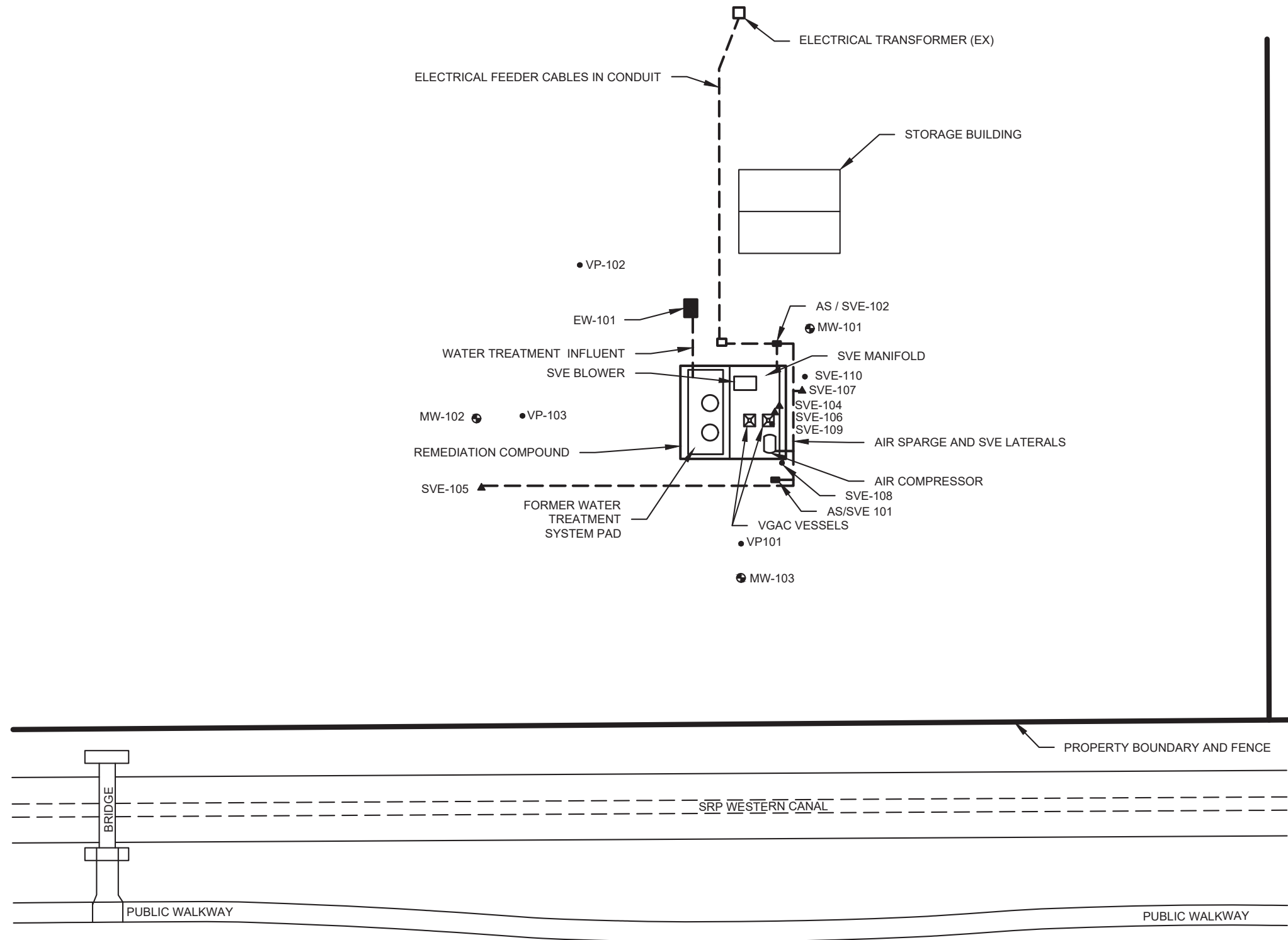


Cooper and Commerce WQARF
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Gilbert, Arizona

Figure 3 October 2019 Site Groundwater Elevations



N:\GEO\SYNTEC\SP0146 SVE SYSTEM\PLAN SET\SP0146 P-01 SVE SITE PLAN



LEGEND:

AS = AIR SPARGE WELL
EW = EXTRACTION WELL
MW = MONITOR WELL
SVE = SOIL VAPOR EXTRACTION WELL
VP = VAPOR MONITOR WELL
VGAC = VAPOR PHASE GRANULAR ACTIVATED CARBON

DETAILS:

SVE-108: 6 feet west of east compound boundary
4 feet south of south compound boundary

SVE-109: 7 feet west of east compound boundary
14 feet north of south compound boundary

SVE-110: 6.5 feet east of east compound boundary
2 feet south of north compound boundary

0 25 50
Approximate Scale in Feet



SVE SITE PLAN



APPENDIX A

RESPONSIVENESS SUMMARY

PROPOSED REMEDIAL ACTION PLAN COMMENTS

RESPONSIVENESS SUMMARY

In accordance with Arizona Administrative Code (A.A.C.) R18-16-410(B)(2) and Arizona Revised Statute (A.R.S.) §49-287.04(F), this comprehensive responsiveness summary has been prepared to identify and respond to all comments received on the Proposed Remedial Action Plan (PRAP) after the conclusion of the public comment period. A 90-day comment period for the PRAP was held starting on July 18, 2019 through October 16, 2019. Three communications containing comments were received during the comment period, as follows:

- One verbal communication, voted unanimously to be made official, from the Community Advisory Board (CAB) during a public meeting held on August 20, 2019.
- One letter from Eric Braum with Town of Gilbert dated September 9, 2019.
- One letter from Andrea Martinez with Salt River Project dated October 16, 2019.

No other comments were received on the PRAP. The comments are summarized below with Arizona Department of Environmental Quality (ADEQ) responses. Copies of the communications follow the summaries and responses.

Transcribed Comments from the CAB

General Comment #1

The CAB commented:

The CAB would like analytical data and site updates to be posted in the repository of the site's My Community page.

ADEQ Response:

ADEQ concurs with the comment. Although not described in the ROD, which is a reflection of requirements set forth by A.R.S. and A.A.C., ADEQ will continue to update and publish a Site map, as well as annual Site updates. Updates to the Site map and status are planned to appear at https://static.azdeq.gov/wqarf/cooper_road_and_commerce_avenue.pdf and <https://azdeq.gov/node/884>, respectively.

The Site updates will be an annual summary of activities and results, as opposed to raw analytical data. ADEQ will make all sampling analytical results available at <https://waterdata.azdeq.gov/AZWQDB/Pages/Public/>.

Remedy Comment #2

The CAB commented:

The CAB suggests that the number of wells to actually be sampled during the remediation phase be pared down, based on data results, in a cost-savings effort. This would be reevaluated after every sampling event.

ADEQ Response:

ADEQ concurs with the comment. The MNA portion of the Proposed Remedy in the PRAP has been revised to include alteration of the monitoring well network and monitoring frequency based on data collected through the lifetime of the Selected Remedy described in the ROD. The MNA portion of the Selected Remedy will commence using the full monitoring well network. Once the results from the initial monitoring event have been evaluated, the wells scheduled for the next monitoring event will be adapted for efficiency. The Selected Remedy in the ROD states:

The MNA program will include semiannual water level monitoring and collection of groundwater samples for COC analysis from up to 33 wells within the current monitoring well network. As the concentration of COCs in groundwater decreases over time, the monitoring frequency may be

reduced, and the number of wells selected for groundwater monitoring and sampling may be decreased. The number of wells monitored and the frequency of monitoring will be evaluated after MNA monitoring events, with changes documented in the Periodic Reviews of remedy results.

General Comment #3

The CAB commented:

The CAB has requested regular public meetings to update the soon-to-be-former CAB members and the community on site activities, not to exceed an interval of every two years.

ADEQ Response:

ADEQ concurs with the comment. Although not described in the ROD, which is a reflection of requirements set forth by A.R.S. and A.A.C., ADEQ will keep the community informed of ongoing Site activities. ADEQ plans to continue giving presentations regarding Site activities and status to the community. ADEQ may give the presentations at the interval requested, but will consider factors such as Site activities, remedial progress, and community availability and desire to attend when scheduling presentations.

Written Comments from Eric Braum with Town of Gilbert

Remedy Comment #1

Mr. Braum Wrote:

ADEQ staff have stated that there is not a strong need to monitor all 33 wells within the project as proposed in the Plan, but rather that selecting some portion of the wells that could best define the area of the plume as well as monitoring the effectiveness of the natural attenuation would be just as robust of a methodology scientifically, but also more cost effective. While we appreciate the flexibility to increase the scope of monitoring beyond what is minimally necessary, we also recognize the scarcity of funding resources and the competition for continued funding and we encourage ADEQ to use its best scientific expertise in determining on a yearly basis the appropriate level of monitoring to achieve the desired outcomes.

ADEQ Response:

ADEQ concurs with the comment. The MNA portion of the Proposed Remedy in the PRAP has been revised to include alteration of the monitoring well network and monitoring frequency based on data collected through the lifetime of the Selected Remedy described in the ROD. The MNA portion of the Selected Remedy will commence using the full monitoring well network. Once the results from the initial monitoring event have been evaluated, the wells scheduled for the next monitoring event will be adapted for efficiency. The Selected Remedy in the ROD states:

The MNA program will include semiannual water level monitoring and collection of groundwater samples for COC analysis from up to 33 wells within the current monitoring well network. As the concentration of COCs in groundwater decreases over time, the monitoring frequency may be reduced, and the number of wells selected for groundwater monitoring and sampling may be decreased. The number of wells monitored and the frequency of monitoring will be evaluated after MNA monitoring events, with changes documented in the Periodic Reviews of remedy results.

General Comment #2

Mr. Braum Wrote:

The Plan does not make any provision for the publication of monitoring results. We strongly recommend publication of groundwater contaminant maps similar in form to those in the Community Advisory Board briefings, on an annual frequency, at a minimum. The publication could be archived on the Cooper & Commerce Avenue WQARF Site Overview: <https://azdeq.gov/cooper-road-and-commerce-avenue-site-overview> and include a brief summary

of annual activities for the public to better understand what ADEQ is doing to improve conditions in the area.

ADEQ Response:

ADEQ concurs with the comment. Although not described in the ROD, which is a reflection of requirements set forth by A.R.S. and A.A.C., ADEQ will continue to update and publish a Site map, as well as annual Site updates. Updates to the Site map and status are currently planned to appear at https://static.azdeq.gov/wqarf/cooper_road_and_commerce_avenue.pdf and <https://azdeq.gov/node/884>, respectively.

Written Comments from Andrea Martinez with Salt River Project

Water Use Comment #1

Ms. Martinez Wrote:

SRP completed and submitted to ADEQ a Land and Water Use Questionnaire for Utilities within the Cooper Road and Commerce Avenue WQARF Registry Site, dated June 28, 2013. SRP reported that future (100-year) plans would be dictated by water and power service expansions. Though not explicitly stated, that response was not intended to preclude the possibility that SRP groundwater production wells in and around the Site would eventually transition from irrigation water supply to also include potable water supply.

SRP would like to take this opportunity to clarify that groundwater pumped from wells near the Site could be included in the raw drinking water supply for any future water treatment plant built along the Western Canal, a Water of the State, if the need arises. If such a water treatment plant were to be completed, the designated use of groundwater wells in and around the Site would include both irrigation and raw drinking water supply.

SRP maintains a policy that prohibits wells to discharge into canals if the water does not meet applicable standards for the receiving water body. Consistent with Arizona Pollutant Discharge Elimination System (AZPDES) permit #AZ0024341, wells discharging into canals that feed municipal drinking water systems must not exceed established drinking water standards for volatile organic compounds. Thus, SRP believes surface water ROs are necessary for the Site.

SRP respectfully requests that ADEQ be mindful of SRP's current and future water use in and around the Site, and retroactively adopt ROs or other feasible measures that will not only protect against loss or impairment, but also restore, replace or otherwise provide a water supply in the event contamination from the Site impacts SRP canal waters.

ADEQ Response:

Thank you for your comment. Although no RO for surface water exists, several wells present within the vicinity of the Site provide water for agricultural use. The water from these wells is conveyed through a system of laterals and canals, wherein it is subject to regulation as surface water. The current use of this water is not impacted by Site COCs, but the ROD includes a contingency for wellhead treatment that encompasses these wells and provides protection for future use as a drinking water supply.